

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

		A15CE
		Revision 40
		AEROSTAR
		(RAVEN)
RX-6	S-60A	BUNY
RX-7	S-60S	CAKE
RX-8	S-64A	CELL
RXS-8	S-66A	COOK
RX-9	S-71A	CTS
S-40A	S-77A	DAISY
S-49A	S-81A	GEOSPHERE
S-50A	78C	HOUSE
S-51A	90C	PCORN
S-52A	110P	QUBE-80
S-53A	ARKY	SPI
S-53H	BAG	SPII
S-55A	BEAR	SPIII
S-57A	BRAIN	SUN
S-57S	BRUT	W100LB
		July 31, 2002

TYPE CERTIFICATE DATA SHEET NO. A15CE

This data sheet, which is part of Type Certificate No. A15CE, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Aerostar International, Inc.
1814 "F" Avenue
Sioux Falls, SD 57117-5057

Type Certificate Holder Record: Raven Industries transferred TC A15CE to Aerostar International, Inc. on February 1, 1986

I - Model S-50A, Hot Air Balloon, Approved December 10, 1968

Envelope	Aerostar Drawing 05957
Air Heaters	Aerostar P/N 04420, 10118, 12323, 13050, 13155, 13180, 14160, 14170, 15370, 15384, 17395, 17398, 17399, 17400, 17642, 51464, 52350, or 52370 (see NOTE 7).
Gondolas	G Series (aluminum), Drawing 01919; Model W (wicker), Drawing 12717; G Series H.P. (aluminum), Drawing 12570; Model W, H.P. (wicker), Drawing 12560; G Series H.P. high control (aluminum), Drawing 13843; Model W, H.P. high control (wicker), Drawing 13842; Model CW (wicker), Drawing 13860; Model RW (wicker), Drawing 14530; Model CW-V (wicker), Drawing 15325; Model RWS (wicker), Drawing 52131; Model ELS (wicker), Drawing 52440; Model ELSS (wicker), Drawing 53095; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.
Fuel	Commercial LPG
Maximum Weight	For Model ELS gondola, Drawing 52440, and Model ELSS gondola, Drawing 53095, the gross weight limited to 1150 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual. For all other gondolas, the gross weight limited to 1400 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.

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Fuel Capacity	<p>For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or one V-15 tank and one H-20 tank, one of which must have a dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860 and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model RWS gondola, Drawing 52131 fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two H-20 tanks; or two or three or four V-10 tanks; or two or three or four V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	S50A-124 and up (see NOTE 1 for S/N S50A-121 through 123, also see NOTE 2).

II - Model S-40A, Hot Air Balloon, Approved July 15, 1969

Envelope	Aerostar Drawing 06275
Air Heater	Aerostar P/N 09645 (see NOTE 7).
Gondola	G Series (aluminum), Drawing 01919; Model ELS (wicker), Drawing 52440; or Model ELSS (wicker), Drawing 53095.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 800 lbs. or to weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For all other approved gondolas, fuel capacity is limited to two V-10 tanks; or two V-15 tanks (see NOTE 6).</p>
Serial Nos. Eligible	S40A-114, -116 and up (see NOTE 2).

III - Model S-60A, Hot Air Balloon, Approved April 30, 1971

Envelope	Aerostar Drawing 10428
Air Heaters	Aerostar P/N 10118, 12323, 13050, 13155, 13180, 14160, 14170, 15370, 15384, 17395, 17398, 17399, 17400, 17642, 51464. 52350, or 52370 (see NOTE 7).

Gondolas	G Series (aluminum), Drawing 01919; Model W (wicker), Drawing 12717; G Series H.P. (aluminum), Drawing 12570; Model W, H.P. (wicker), Drawing 12560; G Series H.P. high control (aluminum), Drawing 13843; Model W, H.P. high control (wicker), Drawing 13842; Model CW (wicker), Drawing 13860; Model RW (wicker), Drawing 14530; Model CW-V (wicker), Drawing 15325; Model CW-S (wicker), Drawing 51620; Model RWS (wicker), Drawing 52131; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.
Fuel	Commercial LPG
Maximum Weight	For Model CW gondola, Drawing 13860; Model CW-V gondola, Drawing 15325, Model CW-S gondola, Drawing 51620, Model RWS gondola, Drawing 52131, Model RWSW gondola, Drawing 53030, Model CW-AFX (wicker), Drawing 53160, and Model RWSW-AFX (wicker), Drawing 53130, when used with either H.P. Dual Burner, Drawing 14160, H.P. II Dual Burner, Drawing 17395, or H.P. III Dual Burner, Drawing 52350, the gross weight limited to 1800 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual. For all other approved burner and gondola combinations, the gross weight limited to 1470 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7). For Model CW gondola, Drawing 13860, Model CW-S gondola, Drawing 51620, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7). For Model RWS gondola, Drawing 52131 fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7). For all other approved gondolas, fuel capacity is limited to two H-20 tanks; or two or three or four V-10 tanks; or two or three or four V-15 tanks (see NOTES 6 and 7).
Serial Nos. Eligible	S60A-105 and up (see NOTE 2).

IV - Model S-55A, Hot Air Balloon, Approved April 10, 1973

Envelope	Aerostar Drawing 11813
Air Heaters	Aerostar P/N 10118, 12323, 13050, 13155, 13180, 14160, 14170, 15370, 15384, 17395, 17398, 17399, 17400, 17642, 51464, 52350, or 52370 (see NOTE 7).
Gondolas	G Series (aluminum), Drawing 01919; Model W (wicker), Drawing 12717; G Series H.P. (aluminum), Drawing 12570; Model W, H.P. (wicker), Drawing 12560; G Series H.P. high control (aluminum), Drawing 13843; Model W, H.P. high control (wicker), Drawing 13842; Model CW (wicker), Drawing 13860; Model RW (wicker), Drawing 14530; Model CW-V (wicker), Drawing 15325; Model RWS (wicker), Drawing 52131; Model ELS (wicker), Drawing 52440; Model ELSS (wicker), Drawing 53095; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.
Fuel	Commercial LPG
Maximum Weight	For Model ELS gondola, Drawing 52440, and Model ELSS gondola, Drawing 53095, the gross weight limited to 1200 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual. For all other gondolas, the gross weight limited to 1435 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.

Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or one V-15 tank and one H-20 tank, one of which must have a dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, and Model CW-AFX (wicker), Drawing, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model RWS gondola, Drawing 52131 fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two H-20 tanks,; or two or three or four V-10 tanks; or two or three or four V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	S55A-101 thru S55A-103, S55A-105 thru S55A-114, S55A-116 and up. (See NOTE 2.)

V - Model RX-6, Hot Air Balloon, Approved September 10, 1974

Envelope	Aerostar Drawing 12600
Air Heaters	Aerostar P/N 13180, 51464, 17395, 17398, 17399, 52350, or 52370 (see NOTE 7).
Gondola	Model R (polyethylene), Drawing 12580; Model RW (wicker), Drawing 14530; Model RWS (wicker), Drawing 52131; Model ELS (wicker), Drawing 52440; Model ELSS (wicker), Drawing 53095; Model RWSW (wicker), Drawing 53030; or Model RWSW-AFX (wicker), Drawing 53130.
Fuel	Commercial LPG
Maximum Weight	<p>For Model ELS gondola, Drawing 52440, and Model ELSS gondola, Drawing 53095, the gross weight limited to 1150 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For all other gondolas, the gross weight limited to 1430 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.</p>
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.

Fuel Capacity

For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or one V-15 tank and one H-20 tank, one of which must have a dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).

For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).

For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).

For all other approved gondolas, fuel capacity is limited to two or three or four V-10 tanks; or two or three or four V-15 tanks (see NOTES 6 and 7).

Serial Nos. Eligible

RX6-101 and up (see NOTE 2).

VI - Model RX-7, Hot Air Balloon, Approved November 21, 1978

Envelope

Aerostar Drawing 17312

Air Heaters

Aerostar P/N 13180, 14160, 14170, 17395, 17398, 17399, 51464, 52350, or 52370 (see NOTE 7).

Gondola

Model R (polyethylene), Drawing 12580; Model RW (wicker), Drawing 14530; Model RWS (wicker), Drawing 52131; Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model ELS (wicker), Drawing 52440; Model ELSS (wicker), Drawing 53095; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.

Fuel

Commercial LPG

Maximum Weight

For Model ELS gondola, Drawing 52440, and Model ELSS gondola, Drawing 53095, the gross weight limited to 1200 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.

For all other gondolas, the gross weight limited to 1480 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.

Allowable Envelope Temperature

1. Never exceed: 275°F.
2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F.
3. Maximum continuous: 250°F.

Minimum Crew

One (1) Pilot.

Fuel Capacity

For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or one V-15 tank and one H-20 tank, one of which must have a dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).

For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).

For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).

For Model CW gondola, Drawing 13860, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).

For Model RWS gondola, Drawing 52131 fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).

For all other approved gondolas, fuel capacity is limited to two H-20 tanks; or two or three or four V-10 tanks; or two or three or four V-15 tanks (see NOTES 6 and 7).

Serial Nos. Eligible

RX7-101 and up (see NOTE 2).

VII - Model S-66A, Hot Air Balloon, Approved September 19, 1979

Envelope	Aerostar Drawing 17653
Air Heaters	Aerostar P/N 14160, 17395, 52350, or 52950 (see NOTE 7).
Gondolas	G Series H.P. high control (aluminum), Drawing 13843; Model W, H.P. high control (wicker), Drawing 13842; Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model TW, Drawing 51076; or Model CW-S (wicker), Drawing 51620; or Model RB6, Drawing 52428; Model RB5, Drawing 52805; or Model CW-AFX (wicker), Drawing 53160.
Fuel	Commercial LPG
Maximum Weight	<p>For Model W gondola, H.P. high control, Drawing 13842, and for G Series gondola, H.P. high control, Drawing 13843, the gross weight limited to 1590 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For Model CW gondola, Drawing 13860, Model CW-V gondola, Drawing 15325, Model CW-S gondola, Drawing 51620, and; Model CW-AFX (wicker), Drawing 53160, the gross weight limited to 2,000 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For Model RB5 gondola, Drawing 52805, the gross weight limited to 2,300 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For Model TW gondola, Drawing 51076, or Model RB6 gondola, Drawing 52428, the gross weight limited to 2500 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p>
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model TW gondola, Drawing 51076, fuel capacity is limited to six V-10 tanks; or four V-15 tanks (see NOTE 6).</p> <p>For Model RB6 gondola, Drawing 52428, fuel capacity is limited to two V-23 tanks; or two V-23 tanks and one or two V-15 or V-18 tanks; or three or four V-15 or V-18 tanks. When used with a triple burner, a minimum of three tanks is required (see NOTE 6).</p> <p>For Model RB5 gondola, Drawing 52805, fuel capacity is limited to three V-15 tanks; or two V-18 tanks and one V-15 tank (see NOTE 6).</p> <p>For Model CW gondola, Drawing 13860, Model CW-S gondola, Drawing 51620, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two H-20 tanks; or three or four V-10 tanks; or two or three or four V-15 tanks (see NOTE 6).</p>
Serial Nos. Eligible	S66A-102 and up (see NOTES 1 and 2).

VIII - Model W100LB, Hot Air Balloon, Approved April 16, 1980

Envelope	Aerostar Drawing 51072
Air Heaters	Aerostar P/N 14160, 14170, 15384, 17395, 17398, or 17642 (see NOTE 7).
Gondola	Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; or Model CW-AFX (wicker), Drawing 53160.
Fuel	Commercial LPG

Maximum Weight	Gross weight limited to 1200 lbs. or to weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	Two H-20 tanks; or three or four V-10 tanks (see NOTE 6).
Serial Nos. Eligible	W100LB-101 and up (see NOTE 2).

IX - Model S-77A, Hot Air Balloon, Approved May 11, 1983

Envelope	Aerostar Drawing 51502
Air Heaters	Aerostar P/N 14160, 17395, 52350, or 52950 (see NOTE 7).
Gondolas	Model TW, Drawing 51076 (with Dual burners only); or Model RB6, Drawing 52428; or Model RB8, Drawing 52430; or Model RB12, Drawing 52430-02.
Fuel	Commercial LPG
Maximum Weight	For Model RB8 gondola, Drawing 52430, and Model RB12 gondola, Drawing 52430-02, the gross weight limited to 3450 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual. Envelope revision letter must be Revision S or higher, or retrofitted with Revision S or higher to qualify For all other gondolas, the gross weight limited to 2800 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	For Model TW gondola, Drawing 51076, fuel capacity is limited to six V-10 tanks; or four V-15 tanks (see NOTE 6). For Model RB6 gondola, Drawing 52428, fuel capacity is limited to two V-23 tanks; or two V-23 tanks and one or two V-15 or V-18 tanks; or three or four V-15 or V-18 tanks. When used with a triple burner, a minimum of three tanks is required (see NOTE 6). For Model RB8 gondola, Drawing 52430, and Model RB12 gondola, Drawing 52430-02, fuel capacity is limited to three V-23 tanks; or two V-23 tanks and one or two or three V-15 or V-18 tanks; or three or four or five V-15 or V-18 tanks (see NOTE 6).
Serial Nos. Eligible	S77A-101 and up (see NOTES 1 and 2).

X - Model S-57A, Hot Air Balloon, Approved June 19, 1987

Envelope	Aerostar Drawing 52057
Air Heaters	Aerostar P/N 10118, 12323, 13050, 13155, 13180, 14160, 14170, 15370, 15384, 17395, 17398, 17399, 17400, 17642, 51464, 52350, or 52370 (see NOTE 7).
Gondolas	G Series (aluminum), Drawing 01919; Model W (wicker), Drawing 12717; G Series H.P. (aluminum), Drawing 12570; Model W, H.P. (wicker), Drawing 12560; G Series H.P. high control (aluminum), Drawing 13843; Model W, H.P. high control (wicker), Drawing 13842; Model CW (wicker), Drawing 13860; Model RW (wicker), Drawing 14530; Model CW-V (wicker), Drawing 15325; Model CW-S (wicker), Drawing 15620; Model RWS (wicker), Drawing 52131; Model ELS (wicker), Drawing 52440; Model ELSS (wicker), Drawing 53095; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.

Fuel	Commercial LPG
Maximum Weight	<p>For Model CW gondola, Drawing 13860, Model CW-V gondola, Drawing 15325, Model CW-S gondola, Drawing 51620, Model RWS gondola, Drawing 52131; Model RWSW gondola, Drawing 53030, Model CW-AFX (wicker), Drawing 53160, and Model RWSW-AFX (wicker), Drawing 53130, when used with either H.P. Dual Burner, Drawing 14160, H.P. II Dual Burner, Drawing 17395, or H.P. III Dual Burner, Drawing 52350, the gross weight limited to 1650 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For Model ELS gondola, Drawing 52440, and Model ELSS gondola, Drawing 53095, the gross weight limited to 1200 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For all other gondolas, the gross weight limited to 1455 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p>
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or one V-15 tank and one H-20 tank, one of which must have a dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, Model CW-S gondola, Drawing 51620, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model RWS gondola, Drawing 52131 fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two H-20 tanks; or two or three or four V-10 tanks; or two or three or four V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	S57A-3001 and up. (See NOTE 2.)

XI - Model S-52A, Hot Air Balloon, Approved April 26, 1988

Envelope	Aerostar Drawing 52052
Air Heaters	Aerostar P/N 04420, 10118, 12323, 13050, 13155, 13180, 14160, 14170, 15370, 15384, 17395, 17398, 17399, 17400, 17642, 51464, 52350, or 52370 (see NOTE 7).
Gondolas	<p>G Series (aluminum), Drawing 01919; Model W (wicker), Drawing 12717;</p> <p>G Series H.P. (aluminum), Drawing 12570; Model W, H.P. (wicker), Drawing 12560; G Series H.P. high control (aluminum), Drawing 13843; Model W, H.P. high control (wicker), Drawing 13842; Model CW (wicker), Drawing 13860; Model RW (wicker), Drawing 14530; Model CW-V (wicker), Drawing 15325; Model RWS (wicker), Drawing 52131; Model ELS (wicker), Drawing 52440; Model ELSS (wicker), Drawing 53095; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.</p>
Fuel	Commercial LPG

Maximum Weight	For Model ELS gondola, Drawing 52440, and Model ELSS gondola, Drawing 53095, the gross weight limited to 1150 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual. For all other gondolas, the gross weight limited to 1400 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or one V-15 tank and one H-20 tank, one of which must have a dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6). For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6). For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7). For Model CW gondola, Drawing 13860, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7). For Model RWS gondola, Drawing 52131 fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7). For all other approved gondolas, fuel capacity is limited to two H-20 tanks; or two or three or four V-10 tanks; or two or three or four V-15 tanks (see NOTES 6 and 7).
Serial Nos. Eligible	S52A-3001 and up (see NOTE 2).

XII - Model RX-8, Hot Air Balloon, Approved May 8, 1989

Envelope	Aerostar Drawing 52088
Air Heaters	Aerostar P/N 13180, 14160, 14170, 17395, 17398, 17399, 51464, 52350, or 52370 (see NOTE 7).
Gondola	Model R (polyethylene), Drawing 12580; Model RW (wicker), Drawing 14530; Model RWS (wicker), Drawing 52131; Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model CW-S (wicker), Drawing 51620; Model ELS (wicker), Drawing 52440; Model ELSS (wicker), Drawing 53095; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.
Fuel	Commercial LPG
Maximum Weight	For Model RWS gondola, Drawing 52131; model CW gondola, Drawing 13860; Model CW-V gondola, Drawing 15325; Model CW-S gondola, Drawing 51620; Model RWSW gondola, Drawing 53030, Model CW-AFX (wicker), Drawing 53160, and Model RWSW-AFX (wicker), Drawing 53130, when used with either H.P. Dual Burner, Drawing 14160, H.P. II Dual Burner, Drawing 17395, or H.P. III Dual Burner, Drawing 52350, the gross weight limited to 1650 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual. For Model ELS gondola, Drawing 52440, and Model ELSS gondola, Drawing 53095, the gross weight limited to 1200 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual. For all other gondolas, the gross weight limited to 1480 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.

Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or one V-15 tank and one H-20 tank, one of which must have a dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, Model CW-S gondola, Drawing 51620, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model RWS gondola, Drawing 52131 fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two H-20 tanks; or two or three or four V-10 tanks; or two or three or four V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	RX8-3001 and up (see NOTE 2).

XIII - Model 78C, Hot Air Balloon, Approved May 8, 1989

Envelope	Aerostar Drawing 51989
Air Heaters	Aerostar P/N 13050, 14160, 17395, or 52350 (see NOTE 7).
Gondola	Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model RWS (wicker), Drawing 52131; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1400 lbs. or to weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	78C-3001 and up (see NOTE 2).

XIV - Model 90C, Hot Air Balloon, Approved July 8, 1989

Envelope	Aerostar Drawing 51990
Air Heaters	Aerostar P/N 13050, 14160 17395, or 52350 (see NOTE 7).
Gondola	Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model RWS (wicker), Drawing 52131; Model CW-S (wicker), Drawing 52620; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1500 lbs. or to weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7). For Model CW gondola, Drawing 13860, Model CW-S gondola, Drawing 51620, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7). For all other approved gondolas, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).
Serial Nos. Eligible	90C-3001 and up (see NOTE 2).

XV - Model CTS, Hot Air Balloon, Approved October 6, 1989

Envelope	Aerostar Drawing 52393
Air Heaters	Aerostar P/N 13050, 14160, 17395, or 52350 (see NOTE 7).
Gondola	Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; or Model RWS (wicker), Drawing 52131; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; Model RWSW-AFX (wicker), Drawing 53130; Model ELS (wicker), Drawing 52440; or Model ELSS (wicker), Drawing 53095.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1450 lbs. or to weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.

Fuel Capacity	<p>For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or one V-15 tank and one H-20 tank, one of which must have a dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	CTS-3001 and up (see NOTE 2).

XVI - Model S-71A, Hot Air Balloon, Approved August 24, 1990

Envelope	Aerostar Drawing 52071
Air Heaters	Aerostar P/N 14160, 17395, 52350, or 52950 (see NOTE 7).
Gondolas	Model TW, Drawing 51076 (with Dual burners only); Model CW-S (wicker), Drawing 51620 (with Dual burners only); Model RB6, Drawing 52428; Model RB8, Drawing 52430; or Model RB5, Drawing 52805; or Model RB12, Drawing 52430-02.
Fuel	Commercial LPG
Maximum Weight	<p>For Model CW-S gondola, Drawing 51620, the gross weight limited to 2,000 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For Model RB5 gondola, Drawing 52805, the gross weight limited to 2,370 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For Model TW gondola, Drawing 51076, or Model RB6 gondola, Drawing 52428, Model RB8 gondola, Drawing 52430, and Model RB12 gondola, Drawing 52430-02, the gross weight limited to 2,650 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p>
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.

Fuel Capacity	<p>For Model TW gondola, Drawing 51076, fuel capacity is limited to six V-10 tanks; or four V-15 tanks (see NOTE 6).</p> <p>For Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTE 6).</p> <p>For Model RB6 gondola, Drawing 52428, fuel capacity is limited to two V-23 tanks; or two V-23 tanks and one or two V-15 or V-18 tanks; or three or four V-15 or V-18 tanks. When used with a triple burner, a minimum of three tanks is required (see NOTE 6).</p> <p>For Model RB8 gondola, Drawing 52430, and Model RB12 gondola, Drawing 52430-02, fuel capacity is limited to three V-23 tanks; or two V-23 tanks and one or two or three V-15 or V-18 tanks; or three or four or five V-15 or V-18 tanks (see NOTE 6).</p> <p>For Model RB5 gondola, Drawing 52805, fuel capacity is limited to three V-15 tanks; or two V-18 tanks and one V-15 tank (see NOTE 6).</p>
Serial Nos. Eligible	S71A-3001 and up (see NOTE 2).

XVII - Model S-49A, Hot Air Balloon, Approved September 6, 1990

Envelope	Aerostar Drawing 52049
Air Heaters	Aerostar P/N 52370 (see NOTE 7).
Gondolas	Model RWS (wicker), Drawing 52131; Model ELS (wicker), Drawing 52440; Model ELSS (wicker), Drawing 53095; Model RWSW (wicker), Drawing 53030; or Model RWSW-AFX (wicker), Drawing 53130.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1100 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or one V-15 tank and one H-20 tank, one of which must have a dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model RWS gondola, Drawing 52131 fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	S49A-3001 and up. (See NOTE 2.)

XVIII - Model QUBE-80, Hot Air Balloon, Approved June 10, 1991

Envelope	Aerostar Drawing 52496
Air Heaters	Aerostar P/N 13050, 14160, 17395, or 52350 (see NOTE 7).
Gondola	Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model RWS (wicker), Drawing 52131; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; Model RWSW-AFX (wicker), Drawing 53130; Model ELS (wicker), Drawing 52440; or Model ELSS (wicker), Drawing 53095.

Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1450 lbs. or to weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or one V-15 tank and one H-20 tank, one of which must have a dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	Q-3001 and up (see NOTE 2).

XIX - Model S-57S, Hot Air Balloon, Approved January 27, 1992

Envelope	Aerostar Drawing B-52579
Air Heaters	Aerostar P/N 10118, R-12323, 13050, 13155, 13180, 14160, 14170, 15370, 15384, 17395, 17398, 17399, 17400, 17642, 51464, 52350, or 52370 (see NOTE 7).
Gondolas	<p>G Series (aluminum), Drawing 01919; Model W (wicker), Drawing 12717;</p> <p>G Series H.P. (aluminum), Drawing 12570; Model W, H.P. (wicker), Drawing 12560; G Series H.P. high control (aluminum), Drawing 13843; Model W, H.P. high control (wicker), Drawing 13842; Model CW (wicker), Drawing 13860; Model RW (wicker), Drawing 14530; Model CW-V (wicker), Drawing 15325; Model CW-S (wicker), Drawing 15620; Model RWS (wicker), Drawing 52131; Model ELS (wicker), Drawing 52440; Model ELSS (wicker), Drawing 53095; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.</p>
Fuel	Commercial LPG
Maximum Weight	<p>For Model CW gondola, Drawing 13860, Model CW-V gondola, Drawing 15325, Model CW-S gondola, Drawing 51620, Model RWS, Drawing 52131, and Model CW-AFX (wicker), Drawing 53160, when used with either H.P. Dual Burner, Drawing 14160, H.P. II Dual Burner, Drawing 17395, or H.P. III Dual Burner, Drawing 52350, the gross weight limited to 1650 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For Model ELS gondola, Drawing 52440, and Model ELSS gondola, Drawing 53095, the gross weight limited to 1200 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For all other gondolas, the gross weight limited to 1455 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.</p>

Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or one V-15 tank and one H-20 tank, one of which must have a dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, Model CW-S gondola, Drawing 51620, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model RWS gondola, Drawing 52131 fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two H-20 tanks; or two or three or four V-10 tanks; or two or three or four V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	S57S-3001 and up. (See NOTE 2.)

XX - Model S-60S, Hot Air Balloon, Approved July 6, 1992

Envelope	Aerostar Drawing B-52589
Air Heaters	Aerostar P/N 10118, 13050, 13155, 13180, 14160, 14170, 15370, 15384, 17395, 17398, 17399, 17400, 17642, 51464, 52350, or 52370 (see NOTE 7).
Gondolas	<p>G Series (aluminum), Drawing 01919; Model W (wicker), Drawing 12717;</p> <p>G Series H.P. (aluminum), Drawing 12570; Model W, H.P. (wicker), Drawing 12560; G Series H.P. high control (aluminum), Drawing 13843; Model W, H.P. high control (wicker), Drawing 13842; Model CW (wicker), Drawing 13860; Model RW (wicker), Drawing 14530; Model CW-V (wicker), Drawing 15325; Model CW-S (wicker), Drawing 51620; Model RWS (wicker), Drawing 52131; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.</p>
Fuel	Commercial LPG
Maximum Weight	<p>For Model CW gondola, Drawing 13860; Model CW-V gondola, Drawing 15325; Model CW-S gondola, Drawing 51620; Model RWS gondola, Drawing 52131; Model RWSW gondola, Drawing 53030; Model CW-AFX (wicker), Drawing 53160; and Model RWSW-AFX (wicker), Drawing 53130, when used with either H.P. Dual Burner, Drawing 14160, H.P. II Dual Burner, Drawing 17395, or H.P. III Dual Burner, Drawing 52350, the gross weight limited to 1800 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For all other approved burner and gondola combinations, the gross weight limited to 1470 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.</p>
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.

Fuel Capacity	<p>For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, Model CW-S gondola, Drawing 51620, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model RWS gondola, Drawing 52131 fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two H-20 tanks; or two or three or four V-10 tanks; or two or three or four V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	S60S-3001 and up (see NOTE 2).

XXI - Model 110P, Hot Air Balloon, Approved April 30, 1993

Envelope	Aerostar Drawing 52751
Air Heaters	Aerostar P/N 13050, 14160, 17395, or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model CW-S (wicker), Drawing 51620; or Model RWS (wicker), Drawing 52131.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1650 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model CW gondola, Drawing 13860, and Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	110P-3001 and up (see NOTE 2).

XXII - Model SPII, Hot Air Balloon, Approved May 14, 1993

Envelope	Aerostar Drawing 52752
Air Heaters	Aerostar P/N 13050, 14160, 17395, or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model CW-S (wicker), Drawing 51620; Model RWS (wicker), Drawing 52131; or Model RWSW (wicker), Drawing 53030.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1600 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.

Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model RWSW gondola, Drawing 53030, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, and Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	SPII-3001 and up (see NOTE 2).

XXIII - Model RXS-8, Hot Air Balloon, Approved May 14, 1993

Envelope	Aerostar Drawing 52788
Air Heaters	Aerostar P/N 13180, 14170, 17395, 17398, 17399, 51464, 52350, or 52370 (see NOTE 7).
Gondola	Model R (polyethylene), Drawing 12580; Model RW (wicker), Drawing 14530; Model RWS (wicker), Drawing 52131; Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model CW-S (wicker), Drawing 51620; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.
Fuel	Commercial LPG
Maximum Weight	<p>For Model CW gondola, Drawing 13860; Model CW-V gondola, Drawing 15325; Model CW-S gondola, Drawing 51620; and Model CW-AFX (wicker), Drawing 53160; when used with either H.P. Dual Burner, Drawing 14160, H.P. II Dual Burner, Drawing 17395, or H.P. III Dual Burner, Drawing 52350, the gross weight limited to 2000 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For Model RWS gondola, Drawing 52131; Model RWSW gondola, Drawing 53030; and Model RWSW-AFX (wicker), Drawing 53130, when used with either H.P. Dual Burner, Drawing 14160, H.P. II Dual Burner, Drawing 17395, or H.P. III Dual Burner, Drawing 52350, the gross weight limited to 1800 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For all other gondolas, the gross weight limited to 1480 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.</p>
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, Model CW-S gondola, Drawing 51620, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model RWS gondola, Drawing 52131 fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two or three or four V-10 tanks; or two or three or four V-15 tanks; or two H-20 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	RXS8-3001 and up (see NOTE 2).

XXIV - Model RX-9, Hot Air Balloon, Approved September 10, 1993

Envelope	Aerostar Drawing 52799
Air Heaters	Aerostar P/N 14160, 17395, 52350, or 52950 (see NOTE 7).
Gondola	Model CW (wicker), Drawing 13860; Model CW-S (wicker), Drawing 51620; Model RB6, Drawing 52428; or Model RB5, Drawing 52805.
Fuel	Commercial LPG
Maximum Weight	For Model CW gondola, Drawing 13860 and Model CW-S gondola, Drawing 51620, the gross weight limited to 2,000 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual. For Model RB6 gondola, Drawing 52428, or Model RB5 gondola, Drawing 52805, the gross weight limited to 2,225 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	For Model RB6 gondola, Drawing 52428, fuel capacity is limited to two V-23 tanks; or two V-23 tanks and one or two V-15 or V-18 tanks; or three or four V-15 or V-18 tanks. When used with a triple burner, a minimum of three tanks is required (see NOTE 6). For Model RB5 gondola, Drawing 52805, fuel capacity is limited to three V-15 tanks; or two V-18 tanks and one V-15 tank (see NOTE 6). For Model CW gondola, Drawing 13860 and Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTE 6 and 7).
Serial Nos. Eligible	RX9-3001 and up (see NOTE 2).

XXV - Model SPI, Hot Air Balloon, Approved September 10, 1993

Envelope	Aerostar Drawing 52800
Air Heaters	Aerostar P/N 13050, 14160, 17395, or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model CW-S (wicker), Drawing 51620; Model RWS (wicker), Drawing 52131; or Model RWSW (wicker), Drawing 53030.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1560 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.

Fuel Capacity	<p>For Model RWSW gondola, Drawing 53030, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, and Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	SPI-3001 and up (see NOTE 2).

XXVI - Model S-53A, Hot Air Balloon, Approved March 25, 1994

Envelope	Aerostar Drawing 52801
Air Heaters	Aerostar P/N 14160, 14170, 17395, 17398, 52350, or 52370 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model RWS (wicker), Drawing 52131; Model ELS (wicker), Drawing 52440; Model ELSS (wicker), Drawing 53095; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.
Fuel	Commercial LPG
Maximum Weight	<p>For Model ELS gondola, Drawing 52440, and Model ELSS gondola, Drawing 53095, the gross weight limited to 1100 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For all other gondolas, the gross weight limited to 1275 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.</p>
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or one V-15 tank and one H-20 tank, one of which must have a dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model RWS gondola, Drawing 52131 fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	S53A-3001 and up (see NOTE 2).

XXVII - Model S-81A, Hot Air Balloon, Approved May 12, 1994

Envelope	Aerostar Drawing 52917
Air Heaters	Aerostar P/N 17395, 52350, or 52950 (see NOTE 7).
Gondolas	Model RB6, Drawing 52428; Model RB8, Drawing 52430; or Model RB12, Drawing 52430-02.
Fuel	Commercial LPG

Maximum Weight	<p>For Model RB12 gondola, Drawing 52430-02; when used with HP III Triple Burner, Drawing 52950, the gross weight limited to 3800 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For Model RB8 gondola, Drawing 52430, and Model RB12 gondola, Drawing 52430-02, the gross weight limited to 3470 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For Model RB6 gondola, Drawing 52428, the gross weight limited to 2870 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p>
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model RB6 gondola, Drawing 52428, fuel capacity is limited to two V-23 tanks; or two V-23 tanks and one or two V-15 or V-18 tanks; or three or four V-15 or V-18 tanks. When used with a triple burner, a minimum of three tanks is required (see NOTE 6).</p> <p>For Model RB8 gondola, Drawing 52430, and Model RB12 gondola, Drawing 52430-02, fuel capacity is limited to three V-23 tanks; or two V-23 tanks and one or two or three V-15 or V-18 tanks; or three or four or five V-15 or V-18 tanks (see NOTE 6).</p>
Serial Nos. Eligible	S81A-3001 and up (see NOTE 2).

XXVIII - Model ARKY, Hot Air Balloon, Approved May 19, 1994

Envelope	Aerostar Drawing 52907
Air Heaters	Aerostar P/N 13050, 14160, 17395, or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model CW-S (wicker), Drawing 51620; Model RWS (wicker), Drawing 52131; or Model RWSW (wicker), Drawing 53030.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1670 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model RWSW gondola, Drawing 53030, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, and Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	ARKY-3001 and up (see NOTE 2).

XXIX - Model SPIII, Hot Air Balloon, Approved May 19, 1994

Envelope	Aerostar Drawing 53000
Air Heaters	Aerostar P/N 13050, 14160, 17395, or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model CW-S (wicker), Drawing 51620; Model RWS (wicker), Drawing 52131; or Model RWSW (wicker), Drawing 53030.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1500 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	For Model RWSW gondola, Drawing 53030, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7). For Model CW gondola, Drawing 13860, and Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7). For all other approved gondolas, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).
Serial Nos. Eligible	SPIII-3001 and up (see NOTE 2).

XXX - Model BUNY, Hot Air Balloon, Approved September 13, 1994

Envelope	Aerostar Drawing 53001
Air Heaters	Aerostar P/N 13050, 14160, 17395, or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model CW-S (wicker), Drawing 51620; Model RWS (wicker), Drawing 52131; or Model RWSW (wicker), Drawing 53030.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 2100 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	For Model RWSW gondola, Drawing 53030, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7). For Model CW gondola, Drawing 13860, and Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7). For all other approved gondolas, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).
Serial Nos. Eligible	BUNY-3001 and up (see NOTE 2).

XXXI - Model COOK, Hot Air Balloon, Approved September 13, 1994

Envelope	Aerostar Drawing 53003
Air Heaters	Aerostar P/N 13050, 14160, 17395, or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model CW-S (wicker), Drawing 51620; Model RWS (wicker), Drawing 52131; or Model RWSW (wicker), Drawing 53030.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1650 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	For Model RWSW gondola, Drawing 53030, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7). For Model CW gondola, Drawing 13860, and Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7). For all other approved gondolas, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).
Serial Nos. Eligible	COOK-3001 and up (see NOTE 2).

XXXII - Model BAG, Hot Air Balloon, Approved December 20, 1994

Envelope	Aerostar Drawing 53004
Air Heaters	Aerostar P/N 13050, 14160, 17395, or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model CW-S (wicker), Drawing 51620; Model RWS (wicker), Drawing 52131; or Model RWSW (wicker), Drawing 53030.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1700 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	For Model RWSW gondola, Drawing 53030, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7). For Model CW gondola, Drawing 13860, and Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7). For all other approved gondolas, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).
Serial Nos. Eligible	BAG-3001 and up (see NOTE 2).

XXXIII - Model BRUT, Hot Air Balloon, Approved June 20, 1995

Envelope	Aerostar Drawing 53033
Air Heaters	Aerostar P/N 13050, 14160, 17395, or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model RWS (wicker), Drawing 52131; or Model RWSW (wicker), Drawing 53030.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1550 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model RWSW gondola, Drawing 53030, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	BRUT-3001 and up (see NOTE 2).

XXXIV - Model PCORN, Hot Air Balloon, Approved June 20, 1995

Envelope	Aerostar Drawing 53069
Air Heaters	Aerostar P/N 13050, 14160, 17395, 52350, or 52370 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model CW-V (wicker), Drawing 15325; Model RWS (wicker), Drawing 52131; Model ELS (wicker), Drawing 52440; Model ELSS (wicker), Drawing 53095; or Model RWSW (wicker), Drawing 53030.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1700 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.

Fuel Capacity	<p>For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or one V-15 tank and one H-20 tank, one of which must have a dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model RWSW gondola, Drawing 53030, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For all other approved gondolas, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
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Serial Nos. Eligible	PCORN-3001 and up (see NOTE 2).
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XXXV - Model S-51A, Hot Air Balloon, Approved May 22, 1996

Envelope	Aerostar Drawing 53151
Air Heaters	Aerostar P/N 14160, 14170, 17395, 17398, 52350, or 52370 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model RWS (wicker), Drawing 52131; Model ELS (wicker), Drawing 52440; Model RWSW (wicker), Drawing 53030; Model ELSS (wicker), Drawing 53095; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.
Fuel	Commercial LPG
Maximum Weight	<p>For Model ELS gondola, Drawing 52440, and Model ELSS gondola, Drawing 53095, the gross weight limited to 1100 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For all other gondolas, the gross weight limited to 1275 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.</p>
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or one V-15 tank and one H-20 tank, one of which must have a dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model RWS gondola, Drawing 52131, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	S51A-3001 and up (see NOTE 2).

XXXVI - Model CAKE, Hot Air Balloon, Approved July 3, 1996

Envelope	Aerostar Drawing 53171
Air Heaters	Aerostar P/N 17395 or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model CW-S (wicker), Drawing 51620; Model RWS (wicker), Drawing 52131; or Model RWSW (wicker), Drawing 53030.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 2100 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	For Model RWSW gondola, Drawing 53030, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7). For Model CW gondola, Drawing 13860, and Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7). For Model RWS gondola, Drawing 52131, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).
Serial Nos. Eligible	CAKE-3001 and up (see NOTE 2).

XXXVII - Model SUN, Hot Air Balloon, Approved July 18, 1996

Envelope	Aerostar Drawing 53169
Air Heaters	Aerostar P/N 17395 or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1650 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7). For Model CW gondola, Drawing 13860, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).
Serial Nos. Eligible	SUN-3001 and up (see NOTE 2).

XXXVIII - Model DAISY, Hot Air Balloon, Approved May 12, 1998

Envelope	Aerostar Drawing 53174
Air Heaters	Aerostar P/N 17395 or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 2250 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7). For Model CW gondola, Drawing 13860, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).
Serial Nos. Eligible	DAISY-3001 and up (see NOTE 2).

XXXIX - Model BEAR, Hot Air Balloon, Approved April 30, 1999

Envelope	Aerostar Drawing 53180
Air Heaters	Aerostar P/N 17395 or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1900 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7). For Model CW gondola, Drawing 13860, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).
Serial Nos. Eligible	BEAR-3001 and up (see NOTE 2).

XL - Model S-64A, Hot Air Balloon, Approved January 31, 2000

Envelope	Aerostar Drawing 53098
Air Heaters Gondola	Aerostar P/N 14160, 17395, 52350, or 52950 (see NOTE 7). Model CW (wicker), Drawing 13860; Model CW-S (wicker), Drawing 51620; Model RB6, Drawing 52428; or Model RB5, Drawing 52805.
Fuel	Commercial LPG
Maximum Weight	For Model CW gondola, Drawing 13860 and Model CW-S gondola, Drawing 51620, the gross weight limited to 2,000 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual. For Model RB6 gondola, Drawing 52428, or Model RB5 gondola, Drawing 52805, the gross weight limited to 2,225 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	For Model RB6 gondola, Drawing 52428, fuel capacity is limited to two V-23 tanks; or two V-23 tanks and one or two V-15 or V-18 tanks; or three or four V-15 or V-18 tanks. When used with a triple burner, a minimum of three tanks is required (see NOTE 6). For Model RB5 gondola, Drawing 52805, fuel capacity is limited to three V-15 tanks; or two V-18 tanks and one V-15 tank (see NOTE 6). For Model CW gondola, Drawing 13860 and Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTE 6 and 7).
Serial Nos. Eligible	S64A-3001 and up (see NOTE 2).

XLI - Model CELL, Hot Air Balloon, Approved July 18, 2000

Envelope	Aerostar Drawing 53205
Air Heaters	Aerostar P/N 17395 or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model CW-S (wicker), Drawing 51620; Model RWS (wicker), Drawing 52131; or Model RWSW (wicker), Drawing 53030.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 1500 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.
Allowable Envelope Temperature	1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.

Fuel Capacity	<p>For Model RWSW gondola, Drawing 53030, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, and Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model RWS gondola, Drawing 52131, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	CELL-3001 and up (see NOTE 2).

XLII - Model GEOSPHERE, Hot Air Balloon, Approved August 9, 2000

Envelope	Aerostar Drawing 53207
Air Heaters	Aerostar P/N 17395 or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model CW-S (wicker), Drawing 51620; Model RWS (wicker), Drawing 52131; or Model RWSW (wicker), Drawing 53030.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 2,000 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model RWSW gondola, Drawing 53030, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, and Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model RWS gondola, Drawing 52131, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	GEOSPHERE-3001 and up (see NOTE 2).

XLIII - Model BRAIN, Hot Air Balloon, Approved August 8, 2001

Envelope	Aerostar Drawing 53217
Air Heaters	Aerostar P/N 17395 or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model CW-S (wicker), Drawing 51620; Model RWS (wicker), Drawing 52131; or Model RWSW (wicker), Drawing 53030.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 2,500 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.

Fuel Capacity	<p>For Model RWSW gondola, Drawing 53030, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, and Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model RWS gondola, Drawing 52131, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	BRAIN-3001 and up (see NOTE 2).

XLIV - Model HOUSE, Hot Air Balloon, Approved May 8, 2002

Envelope	Aerostar Drawing 53227
Air Heaters	Aerostar P/N 17395 or 52350 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model CW-S (wicker), Drawing 51620; Model RWS (wicker), Drawing 52131; or Model RWSW (wicker), Drawing 53030.
Fuel	Commercial LPG
Maximum Weight	Gross weight limited to 2,000 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.
Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model RWSW gondola, Drawing 53030, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, and Model CW-S gondola, Drawing 51620, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model RWS gondola, Drawing 52131, fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	HOUSE-3001 and up (see NOTE 2).

XLV - Model S-53H, Hot Air Balloon, Approved June 5, 2002

Envelope	Aerostar Drawing 53228
Air Heaters	Aerostar P/N 14160, 14170, 17395, 17398, 52350, or 52370 (see NOTE 7).
Gondolas	Model CW (wicker), Drawing 13860; Model RWS (wicker), Drawing 52131; Model ELS (wicker), Drawing 52440; Model ELSS (wicker), Drawing 53095; Model RWSW (wicker), Drawing 53030; Model CW-AFX (wicker), Drawing 53160; or Model RWSW-AFX (wicker), Drawing 53130.
Fuel	Commercial LPG
Maximum Weight	<p>For Model ELS gondola, Drawing 52440, and Model ELSS gondola, Drawing 53095, the gross weight limited to 1100 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. See Balloon Flight Manual.</p> <p>For all other gondolas, the gross weight limited to 1275 lbs. or to the weight requiring maximum continuous envelope temperature of 250°F., whichever is less. see Balloon Flight Manual.</p>
Allowable Envelope Temperature	<ol style="list-style-type: none"> 1. Never exceed: 275°F. 2. For no longer than 10 minutes continuous or 10 minutes per 2 hours of flight: 250°F. to 275°F. 3. Maximum continuous: 250°F.

Minimum Crew	One (1) Pilot.
Fuel Capacity	<p>For Model ELS gondola, Drawing 52440, fuel capacity is limited to one H-20 tank with dual liquid feed; or one V-15 tank and one H-20 tank, one of which must have a dual liquid feed; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model ELSS gondola, Drawing 53095, fuel capacity is limited to one H-25 tank with dual liquid feed; or one H-25 tank with dual liquid feed and one V-15 tank; or two V-15 tanks, one of which must have a dual liquid feed (see NOTE 6).</p> <p>For Model RWSW gondola, Drawing 53030, and Model RWSW-AFX (wicker), Drawing 53130, fuel capacity is limited to one H-20 tank and one or two V-15 or V-18 tanks; or two or three or four V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model CW gondola, Drawing 13860, and Model CW-AFX (wicker), Drawing 53160, fuel capacity is limited to two H-20 tanks; or one H-20 tank and one or two V-10 or V-15 or V-18 tanks; or two or three or four V-10 or V-15 or V-18 tanks (see NOTES 6 and 7).</p> <p>For Model RWS gondola, Drawing 52131 fuel capacity is limited to two or three or four V-10 or V-15 tanks (see NOTES 6 and 7).</p>
Serial Nos. Eligible	S53H-3001 and up (see NOTE 2).

Data Pertinent to All Models

Certification Basis	<p>Part 31 of the Federal Aviation Regulations dated July 1, 1964, as amended by 31-1 and 31-2. Application for Type Certificate dated December 12, 1967. Type Certificate No. A15CE issued December 10, 1968.</p> <p><u>Models 110P, 78C, 90C, ARKY, BAG, BEAR, BRAIN, BRUT, BUNY, CAKE, CELL, COOK, CTS, DAISY, GEOSPHERE, HOUSE, PCORN, QUBE-80, SPI, SPII, SPIII, and SUN:</u></p> <p>Part 31 of the Federal Aviation Regulations dated July 1, 1964, as amended by 31-1 and 31-2. In addition, FAR 31.17 and 31.19 of amendment 31-4.</p>
Production Basis	Production Certificate No. 3GL.
Equipment	<p>The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification, except for safety belts.</p> <p>In addition to the above required equipment, the following equipment is also required:</p> <p>Burner lighter-sparker, matches or equal. Protective headgear for pilot and passengers. Approved instrumentation package (see NOTE 8). FAA Approved Balloon Flight Manual dated December 9, 1968 (S-50A), reissued April 15, 1983, or later approved revision. FAA Approved Balloon Flight Manual dated July 10, 1969 (S-40A), or later approved revision. FAA Approved Balloon Flight Manual dated April 30, 1971 (S-60A), reissued April 15, 1983, or later approved revision. FAA Approved Balloon Flight Manual dated April 2, 1973 (S-55A), reissued April 15, 1983, or later approved revision. FAA Approved Balloon Flight Manual dated September 4, 1974, (RX-6), reissued April 15, 1983, or later approved revision. FAA Approved Balloon Flight Manual dated November 21, 1978 (RX-7), reissued April 15, 1983, or later approved revision. FAA Approved Balloon Flight Manual dated September 19, 1979 (S-66A), reissued April 15, 1983, or later approved revision. FAA Approved Balloon Flight Manual dated March 31, 1980 (W100LB), or later approved revision. FAA Approved Balloon Flight Manual dated April 15, 1983 (S-77A), or later approved revision. FAA Approved Balloon Flight Manual dated June 19, 1987 (S-57A), or later approved revision. FAA Approved Balloon Flight Manual dated April 26, 1988 (S-52A), or later approved revision. FAA Approved Balloon Flight Manual dated May 1, 1989 (RX-8), or later approved revision. FAA Approved Balloon Flight Manual dated May 1, 1989 (78C), or later approved revision. FAA Approved Balloon Flight Manual dated July 18, 1989 (90C), or later approved revision. FAA Approved Balloon Flight Manual dated October 6, 1989 (CTS), or later approved revision. FAA Approved Balloon Flight Manual dated August 23, 1990 (S-71A), or later approved revision.</p>

FAA Approved Balloon Flight Manual dated September 5, 1990 (S-49A), or later approved revision.

FAA Approved Balloon Flight Manual dated June 10, 1991 (QUBE-80), or later approved revision.

FAA Approved Balloon Flight Manual dated January 24, 1992 (S-57S), or later approved revision.

FAA Approved Balloon Flight Manual dated July 2, 1992 (S-60S), or later approved revision.

FAA Approved Balloon Flight Manual dated April 30, 1993 (110P), or later approved revision.

FAA Approved Balloon Flight Manual dated May 14, 1993 (SPII), or later approved revision.

FAA Approved Balloon Flight Manual dated May 14, 1993 (RXS-8), or later approved revision.

FAA Approved Balloon Flight Manual dated September 10, 1993 (RX-9), or later approved revision.

FAA Approved Balloon Flight Manual dated September 10, 1993 (SPI), or later approved revision.

FAA Approved Balloon Flight Manual dated March 25, 1994 (S-53A), or later approved revision.

FAA Approved Balloon Flight Manual dated April 25, 1994 (S-81A), or later approved revision.

FAA Approved Balloon Flight Manual dated May 19, 1994 (ARKY), or later approved revision.

FAA Approved Balloon Flight Manual dated May 19, 1994 (SPIII), or later approved revision.

FAA Approved Balloon Flight Manual dated September 13, 1994 (BUNY), or later approved revision.

FAA Approved Balloon Flight Manual dated September 13, 1994 (COOK), or later approved revision.

FAA Approved Balloon Flight Manual dated December 19, 1994 (BAG), or later approved revision.

FAA Approved Balloon Flight Manual dated June 16, 1995 (BRUT), or later approved revision.

FAA Approved Balloon Flight Manual dated June 16, 1995 (PCORN), or later approved revision.

FAA Approved Balloon Flight Manual dated May 22, 1996 (S-51A), or later approved revision.

FAA Approved Balloon Flight Manual dated July 2, 1996 (CAKE), or later approved revision.

FAA Approved Balloon Flight Manual dated July 18, 1996 (SUN), or later approved revision.

FAA Approved Balloon Flight Manual dated May 12, 1998 (DAISY), or later approved revision.

FAA Approved Balloon Flight Manual dated April 30, 1999 (BEAR), or later approved revision.

FAA Approved Balloon Flight Manual dated January 31, 2000 (S-64A), or later approved revision.

FAA Approved Balloon Flight Manual dated July 17, 2000 (CELL), or later approved revision.

FAA Approved Balloon Flight Manual dated August 9, 2000 (GEOSPHERE), or later approved revision.

FAA Approved Balloon Flight Manual dated August 8, 2001 (BRAIN), or later approved revision.

FAA Approved Balloon Flight Manual dated May 8, 2002 (HOUSE), or later approved revision.

FAA Approved Balloon Flight Manual dated June 3, 2002 (S-53H), or later approved revision.

Maintenance and Inspection

- A. The following maintenance must be performed at each annual inspection:
 1. Replace "O" ring stem seal of quick valve.
 2. Install "repair kit" (replace diaphragm and seals) in pressure regulator on Aerostar single, double, and 4-barrel burner assemblies; Drawings 09645, 04420, 10118, and 12323.
- B. Annual/100-hr. inspections required by FAR 91.409 must include inspection of fabric condition as defined by the latest issue of Aerostar Instructions For Continued Airworthiness.
- C. Envelope must be inspected for heat damage, including strength tests of fabric, if template "tell-tales" show temperature of 275°F has been exceeded. Templates are installed in seams at center of top cap all models.
- D. The fabric and the hook and pile closure tapes shall be inspected as outlined in Aerostar Instructions For Continued Airworthiness.
- E. Criteria for repairing the envelope fabric must be obtained from Aerostar and must be accomplished in accordance with FAR 43 and AC 43.13.
- F. All Inspections, testing, repairs, and replacements must be accomplished in accordance with the latest issue of Aerostar Instructions For Continued Airworthiness.
- G. S/N S50A-121 thru -124 envelopes must be inspected for the security and condition of the flat seams.

NOTE 1. Experimental category Model S-50 balloons S/N -121 thru -123 are eligible as standard category Model S-50A balloons upon conformity to Aerostar Drawing 06678 with the following exceptions:

- (1) Balloon envelope may conform to Aerostar Drawing 05957C except section F-F of ECO 1476.
- (2) Maneuvering vent may conform to Aerostar Drawing 00782C.
- (3) Handling line attachment may conform to Aerostar Drawing 00806B.

Model S-66A balloons S/N -102, -103, -105 are eligible as Model S-66A balloons for a gross weight of 2500 lbs. or less if modified to Aerostar Drawing 17653 Revision Letter D or later.

Model S-66A balloon S/N -101 is eligible as model S-66A for a gross weight of 1800 lbs. or less when manufactured in accordance with Raven Drawing 17653, no revision, and 17681, no revision, with single load tapes.

NOTE 2. Each hot air balloon envelope must have an individual registration number. An individual envelope is eligible for a Standard Airworthiness Certificate when mated with any approved combination of gondola and burner assembly for that model balloon. Change to an eligible combination must be documented by making a logbook entry endorsed by pilot in command or certified mechanic.

NOTE 3. For the purpose of maintenance and inspection, operation records (logbooks) must be maintained with each hot air balloon envelope. If burner assemblies and/or gondolas are interchanged, separate records must be maintained for the burner and the gondola.

NOTE 4. Gaseous nitrogen pressurization of fuel tanks is approved only in accordance with the following:

FAA Approved Balloon Flight Manual dated December 9, 1968 (S-50A), Revision L, dated 9/27/88, or later approved revision.

FAA Approved Balloon Flight Manual dated July 10, 1969 (S-40A), Revision C, dated 9/27/88, or later approved revision.

FAA Approved Balloon Flight Manual dated April 30, 1971 (S-60A), Revision N, dated 9/27/88, or later approved revision.

FAA Approved Balloon Flight Manual dated April 2, 1973 (S-55A), Revision L, dated 9/27/88, or later approved revision.

FAA Approved Balloon Flight Manual dated September 4, 1974, (RX-6), Revision K, dated 9/27/88, or later approved revision.

FAA Approved Balloon Flight Manual dated November 21, 1978 (RX-7), Revision F, dated 9/27/88, or later approved revision.

FAA Approved Balloon Flight Manual dated September 19, 1979 (S-66A), Revision G, dated 9/27/88, or later approved revision.

FAA Approved Balloon Flight Manual dated April 15, 1983 (S-77A), Revision F, dated 9/27/88, or later approved revision.

FAA Approved Balloon Flight Manual dated June 19, 1987 (S-57A), Revision A, dated 9/27/88, or later approved revision.

FAA Approved Balloon Flight Manual dated April 26, 1988 (S-52A), Revision A, dated 9/27/88, or later approved revision.

FAA Approved Balloon Flight Manual dated May 1, 1989 (RX-8), or later approved revision.

FAA Approved Balloon Flight Manual dated May 1, 1989 (78C), or later approved revision.

FAA Approved Balloon Flight Manual dated July 18, 1989 (90C), or later approved revision.

FAA Approved Balloon Flight Manual dated October 6, 1989 (CTS), or later approved revision.

FAA Approved Balloon Flight Manual dated August 23, 1990 (S-71A), or later approved revision.

FAA Approved Balloon Flight Manual dated September 5, 1990 (S-49A), or later approved revision.

FAA Approved Balloon Flight Manual dated June 10, 1991 (QUBE-80), or later approved revision.

FAA Approved Balloon Flight Manual dated January 24, 1992 (S-57S), or later approved revision.

FAA Approved Balloon Flight Manual dated July 2, 1992 (S-60S), or later approved revision.

FAA Approved Balloon Flight Manual dated April 30, 1993 (110P), or later approved revision.

FAA Approved Balloon Flight Manual dated May 14, 1993 (SPII), or later approved revision.

FAA Approved Balloon Flight Manual dated May 14, 1993 (RXS-8), or later approved revision.

FAA Approved Balloon Flight Manual dated September 10, 1993 (RX-9), or later approved revision.

FAA Approved Balloon Flight Manual dated September 10, 1993 (SPI), or later approved revision.

FAA Approved Balloon Flight Manual dated March 25, 1994 (S-53A), or later approved revision.

FAA Approved Balloon Flight Manual dated April 25, 1994 (S-81A), or later approved revision.

FAA Approved Balloon Flight Manual dated May 19, 1994 (ARKY), or later approved revision.

FAA Approved Balloon Flight Manual dated May 19, 1994 (SPIII), or later approved revision.

FAA Approved Balloon Flight Manual dated September 13, 1994 (BUNY), or later approved revision.

FAA Approved Balloon Flight Manual dated September 13, 1994 (COOK), or later approved revision.

FAA Approved Balloon Flight Manual dated December 19, 1994 (BAG), or later approved revision.

FAA Approved Balloon Flight Manual dated June 16, 1995 (BRUT), or later approved revision.

FAA Approved Balloon Flight Manual dated June 16, 1995 (PCORN), or later approved revision.

FAA Approved Balloon Flight Manual dated May 22, 1996 (S-51A), or later approved revision.

FAA Approved Balloon Flight Manual dated July 2, 1996 (CAKE), or later approved revision.
 FAA Approved Balloon Flight Manual dated July 18, 1996 (SUN), or later approved revision.
 FAA Approved Balloon Flight Manual dated May 12, 1998 (DAISY), or later approved revision.
 FAA Approved Balloon Flight Manual dated April 30, 1999 (BEAR), or later approved revision.
 FAA Approved Balloon Flight Manual dated January 31, 2000 (S-64A), or later approved revision.
 FAA Approved Balloon Flight Manual dated July 17, 2000 (CELL), or later approved revision.
 FAA Approved Balloon Flight Manual dated August 9, 2000 (GEOSPHERE), or later approved revision.
 FAA Approved Balloon Flight Manual dated August 8, 2001 (BRAIN), or later approved revision.
 FAA Approved Balloon Flight Manual dated May 8, 2002 (HOUSE), or later approved revision.
 FAA Approved Balloon Flight Manual dated June 3, 2002 (S-53H), or later approved revision.

NOTE 5. Pilot heat exchanger is approved for all models in accordance with Aerostar drawing 52285, dated 5/2/88, or later FAA approved revision.

NOTE 6. Eligible fuel tank designations:

<u>Fuel Tank</u>	<u>Type</u>	<u>Capacity</u>	<u>Aerostar P/N</u>
H-20	Horizontal	20-gal. (at 85% fill)	07752
H-25	Horizontal	25-gal. (at 85% fill)	53052
V-10	Vertical	10-gal. (at 80% fill)	09738, 15326, 51477
V-15	Vertical	15-gal. (at 85% fill)	51977
V-18	Vertical	18-gal. (at 85% fill)	53037
V-23	Vertical	23-gal. (at 85% fill)	52427

NOTE 7. Eligible Burner designations:

<u>Burner</u>	<u>Aerostar P/N</u>	<u>Burner</u>	<u>Aerostar P/N</u>
Double	04420	HP II Dual	17395
Single	09645	HP II Single	17398
Double	10118	Rally HP II	17399
Four-Burner	12323	HP II Convertible	17400
Dual Lo-C	13050	HP II Burner Blower	17642
Single Lo-C	13155	Dual Inlet Rally	51464
Rally HP	13180	HP III Dual	52350
Dual Hi-C	14160	HP III Single	52370-01
Single Hi-C	14170	Aurora Single	52370-02
Convertible	15370	HP III Triple	52950
Burner Blower	15384		

If balloon is equipped with Rally Dual-Inlet burner assembly 51464, HP II single burner assembly 17398 Rev. L or later, or H.P. III single burner assembly 52370, one 51477 or one 51977-1 or one 07752-5 or one 53037-2 tank is required. The 51477, 51977-1, 07752-5, and 53037-2 tanks may be used only with the Rally Dual-Inlet burner, HP II single burner (Rev. L or later), and H.P. III single burner.

If the balloon is equipped with an HP III Triple Burner Assembly 52950, a minimum of three vertical fuel tanks with three independent burner hoses must be used.

NOTE 8. Eligible Instrument Packages:

<u>Description</u>	<u>Aerostar P/N</u>
Instrument Panel Assembly	10288
Instrument Case Assembly	12563
Instrument Case Assembly	12953
Instrument Panel Assembly	14115
Instrument Case Assembly	14182
Instrument Case Assembly	14572
Instrument Panel	51094
Retrofit Procedure, Digital Pyro	51193
Instrument Package, Ball	51677
Instrument Package Assembly, Ball	52279
Aegis IR System	53040
Instrument System, Ball M57	53218

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